

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Hampton/NASA Steam Plant
Facility Location:	50 Wythe Creek Road Hampton, VA 23666
Registration Number:	61019
Permit Number:	TRO-61019

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through VII)

November 14, 2007

Effective Date

November 13, 2012

Expiration Date

Francis L. Daniel

November 14, 2007

Signature Date

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I. Facility Information

Permittee

Hampton/NASA Joint Board of Oversight
50 Wythe Creek Rd.
Hampton, VA 23666

Responsible Official

A. McCord Newsome, P.E.
Acting Steam Plant Manager

Facility

Hampton/NASA Steam Plant
50 Wythe Creek Rd.
Hampton, VA 23666

Contact Person

A. McCord Newsome, P.E.
Acting Steam Plant Manager
(757) 865-4705

Secondary Contact Person

Anil Mehrotra
Acting Plant Engineer
(757) 865-1914

County-Plant Identification Number: 51-650-00061

Facility Description: NAICS - 221330. Refuse is received and stored in a stockpile, then fluffed, and delivered by an overhead crane, for mass combustion and waste heat recovery in one of two high pressure watertube Detroit Stoker water-wall furnaces (Units 1 and 2). Combustion gas products are cooled in a Keeler water-tube boiler with economizer. The flue gas is rapidly quenched and scrubbed with water and a lime slurry in a McGill AirClean spray dryer. Solid particles and acid gas by-products are removed from the flue gas with a three compartment McGill AirClean filter system. Emissions are monitored with Land Instrument FGAI analyzers. Flue gases from Units 1 and 2 are exhausted through two separate flues in a 248 foot double flue stack. Alternate scenarios were not provided in the application.

II. Definitions and Clarifications:

The following are from 9 VAC 5 Chapter 40, Article 46.

"Eight-hour block average" means the average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of three eight-hour periods of time: (i) midnight to 8 a.m., (ii) 8 a.m. to 4 p.m., and (iii) 4 p.m. to midnight.

"Four-hour block average" means the average of all hourly emission concentrations or parameter levels when the municipal waste combustion unit operates and combusts municipal solid waste measured over any of six four-hour periods: (i) midnight to 4 a.m., (ii) 4 a.m. to 8 a.m., (iii) 8 a.m. to noon, (iv) noon to 4 p.m., (v) 4 p.m. to 8 p.m., and (vi) 8 p.m. to midnight.

"One-hour arithmetic averages" shall be calculated as specified in 9 VAC 5-40-6750 H.

"Operating Day" means any day the unit combusts any municipal solid waste or refuse-derived fuel. (5-40-6750)

"Operating Hour" means each hour that the facility operates 30 minutes or more.

"Twenty-four hour daily average" or "24-hour daily average" means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the municipal waste combustion unit operates and combusts municipal solid waste measured during the 24 hours between midnight and the following midnight.

Facility and control equipment maintenance or malfunction. 9 VAC 5-40-6800

- C. The emission limitations and operating limits apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction. No startup, shutdown, or malfunction shall last for longer than three hours. This subsection shall not apply to the emission standards set forth in 9 VAC 5-40-6670 A (fugitive dust), 9 VAC 5-40-6680 (odor), and 9 VAC 5-40-6690 (toxics).
- D. A maximum of three hours of test data may be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.
- E. During startup, shutdown, or malfunction periods longer than three hours, emissions data shall not be discarded from compliance calculations, and all provisions under 40 CFR 60.11(d) apply.

CEMS shall be operated as described in 9 VAC 5-40-6750C.

Data for CEMS shall be collected as described in 9 VAC 5-40-6750 G.

- 2. At least 2 data points per hour shall be obtained in order to calculate a valid 1-hour arithmetic average. 40 CFR 60.13(e)(2) requires the continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period. If there are not two 15-minute periods in the hour, monitor is considered to have missed the hour.
- 3. Valid one-hour averages shall be obtained for 75% of the operating hours per day for 90% of the operating days per calendar quarter.
- 4. Failure to obtain the minimum data required in subdivisions G 1 through 3 of this section constitutes a violation of the data collection requirement regardless of the emission level monitored. In such case the board shall be notified according to 9VAC5-40-6770 B 2 e.

III. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
#1	#1	Keeler MK1 Water Wall boiler NB 5341 Detroit Stoker Reciprograte – Refuse fired	45.9 mmBTU/hr (input) 33,000 lb/hr saturated 360 psig steam (output)	McGill Airclean LLC., BETA/MARK 3-156-14, Spray Dryer & Fabric Filter	SDFF #1	PM/Acid Gases	8/16/2007
#2	#2	Keeler MK1 Water Wall boiler NB 5341 Detroit Stoker Reciprograte – Refuse fired	45.9 mmBTU/hr (input) 33,000 lb/hr saturated 360 psig steam (output)	McGill Airclean LLC., BETA/MARK 3-156-14, Spray Dryer & Fabric Filter	SDFF #2	PM/Acid Gases	8/16/2007
EG1	-	Emergency Diesel Generator	750kW	-	-	-	-

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

IV. Fuel Burning Equipment Requirements – (Units #1 & 2)

A. Limitations

1. **Boiler Load** – Each boiler shall be operated at loads not greater than 110% of the maximum demonstrated load of the municipal waste combustor (4-hour block average), as demonstrated in the most recent dioxin/furan testing.
(9 VAC 5-80-110 and Condition 3 of 8/16/2007 Permit)
2. **Emission Controls** – Particulate, sulfur dioxide and hydrogen chloride emissions from the refuse fired boilers shall be controlled by spray dryers and fabric filters (SD/FF). The SD/FF shall be provided with adequate access for inspection and shall be in operation when the boilers are operating.
(9 VAC 5-80-110 and Condition 4 of 8/16/2007 Permit)
3. **Control Device Inlet Temperature** – Each boiler shall be operated such that the inlet temperature of the fabric filter does not exceed 30°F (17°C) above the maximum demonstrated temperature of the fabric filter (four-hour block average).
(9 VAC 5-80-110 and Condition 5 of 8/16/2007 Permit)
4. **Preheater** – Each refuse fired boiler shall use a combustion air preheater during periods when high-moisture refuse is burned, as indicated by carbon monoxide (CO) spiking (when CO concentration is >100 ppm) and heavy flame beds (when flame beds are in excess of two feet above the grate at the drop-off of the burn-out section).
(9 VAC 5-80-110 and Condition 6 of 8/16/2007 Permit)
5. **Combustion Conditions** – The permittee shall ensure that the best possible combustion conditions are maintained to include measures to keep the combustion temperatures of the grates at 1650°F or above. The upper furnace temperatures in each boiler shall be in excess of 1450°F (four-hour block average).
(9 VAC 5-80-110 and Condition 7 of 8/16/2007 Permit)
6. **Fuel** - The approved fuel for the refuse fired boilers (Units 1 & 2) is Municipal Solid Waste as defined in 9 VAC 5-40-6560. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 8 of 8/16/2007 Permit)
7. **RCRA** - No materials regulated by the Resource Conservation and Recovery Act (RCRA) Subtitle C shall be incinerated in this facility.
(9 VAC 5-80-110 and Condition 9 of 8/16/2007 Permit)
8. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the refuse fired boilers shall be operated in compliance with the requirements of 9 VAC 5-40 Article 46.
 - a. **Operator Training and Certification** - Training and/or certifications shall be obtained and maintained as required by 9 VAC 5-40-6700. As an example: each operator must have a Virginia Class IV Operators License (18 VAC 155-20-110).

b. **Plant Specific Training courses and Operating Manual** - Plant specific training courses shall be established and an operating manual written as required by 9 VAC 5-40-6700B.

c. **Staffing** - The municipal waste combustion units shall not be operated unless staffed in accordance with 9 VAC 5-40-6700 D, E and F.

(9 VAC 5-80-110 and Condition 10 of 8/16/2007 Permit)

9. **Requirements by Reference** - Except where this permit is more restrictive than the applicable requirement, the permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ - notification only. (See 63.6590(b)(i) and 63.6645(d)).

(9 VAC 5-80-110 and Condition 11 of 8/16/2007 Permit)

10. **Process Emission Limits** - Emissions from the operation of each Class II refuse fired boiler shall not exceed the limits specified below:

Pollutant	Article 46 Standard	Citation	EPA Compliance Method
PM/PM10	70 mg/dscm @7% oxygen (3-run average)	9 VAC 5-40-6570	Method 5 or 29
CO	100 ppmvd @7% oxygen (4-hour block average, arithmetic mean)	9 VAC 5-40-6580	CEMS (direct compliance)
Dioxins/furans	125 ng/dscm @ 7% oxygen (3-run average; min. run duration of 4 hours)	9 VAC 5-40-6590	Method 23
Hydrogen chloride (HCl)	250 ppmvd @7% oxygen or 50% reduction of potential emissions (3-run average; min run duration 1 hour)	9 VAC 5-40-6600	Method 26 or 26A
Sulfur Dioxide (SO ₂)	77 ppmvd @7% oxygen or 50% reduction of potential emissions (24-hour block geometric average concentration or % reduction)	9 VAC 5-40-6610	CEMS (direct compliance)
Nitrogen Oxides	Not Applicable	Not Applicable	Not Applicable
Lead (Pb)	1.6 mg/dscm @7% oxygen (3-run average)	9 VAC 5-40-6630	Method 29
Cadmium (Cd)	0.10 mg/dscm @7% oxygen (3-run average)	9 VAC 5-40-6640	Method 29
Mercury	0.080 mg/dscm @ 7% oxygen (3-run average)	9 VAC 5-40-6650	Method 29

(9 VAC 5-80-110 and Condition 12 of 8/16/2007 Permit)

11. **Visible Emission Limit** - Visible emissions from the refuse fired boilers shall not exceed 10% opacity (measured for thirty 6-minute averages (no 6-minute average shall exceed the limit)) as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-110 and Condition 13 of 8/16/2007 Permit)

12. **Visible Fugitive Dust/Ash Emission Limit** - Visible emissions from the handling of ash from the refuse fired boilers shall not exceed 5% of hourly observation period (measured for three 1-hour observation periods) as determined by the EPA Method 22 (reference 40 CFR 60, Appendix A). (9 VAC 5-80-110 and Condition 14 of 8/16/2007 Permit)
13. **Operating Hours** - The emergency generator (EG-1) shall not operate more than 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (9 VAC 5-80-110)

B. Monitoring

14. **Monitoring Devices** – Each fabric filter (FF) shall be equipped with a device to continuously measure the inlet temperature of the fabric filter. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the boiler is operating. (9 VAC 5-80-110 and 9 VAC 5-40-6720 B)
15. **Visible Emission Observations (VEE)** - The permittee shall conduct a 3-hour VEE of each stack at least annually, in accordance with EPA Method 9 to determine compliance with the visual emissions standard of 10% opacity. The permittee shall monitor data from continuous opacity monitors (COM). When visual emissions in excess of 10%, averaged over 6 minutes, are recorded by a COM, the permittee shall record the details of the incident, and a summary of any corrective action taken or planned, in a log book kept onsite, and available for inspection by DEQ for the most recent five years. Each COM shall be maintained and calibrated in accordance with 9 VAC 5-40-41 and 9 VAC 5-40-6750 of the regulations. The data obtained from the COM are not used to determine compliance with the opacity limit. (9 VAC 5-80-110 and Condition 15 and 16 of 8/16/2007 Permit)
16. **CEMS** - Continuous Emission Monitoring Systems, meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the emissions of carbon monoxide, and sulfur dioxide from the outlet of each air pollution control device as ppmvd corrected to 7% O₂. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, Appendices B and F and 9 VAC 5 Chapter 40, Article 46. Data shall be reduced as specified in Article 46 for each pollutant. The SPAN VALUE for the SO₂, CO and O₂, shall be determined as set forth in 9 VAC 5-40 6750. Valid 1-hour averages shall be obtained for 75% of the operating hours per day for 90% of the operating days per calendar quarter. (9 VAC 5-80-110 and Condition 18 of 8/16/2007 Permit)
17. **COMS** - Continuous Opacity Monitoring Systems, meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the opacity of emissions from the boilers. The COMS shall be installed, calibrated, maintained and operated in accordance with the requirements of 40 CFR 60.13 and 9 VAC 5-40-6750. Data shall be reduced to six minute averages. (9 VAC 5-80-110 and Condition 19 of 8/16/2007 Permit)

18. **CEMS/COMS Performance Evaluations** - Performance evaluations of the continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and 9 VAC 5-50-30, 9 VAC 5-40-6750 C and J. This requires an annual evaluation conducted no more than 13 months after the previous evaluation. A copy of the performance evaluations report shall be submitted to the Director, Tidewater Regional Office within 60 days of the evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30 day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the Director, Tidewater Regional Office.
(9 VAC 5-80-110 and Condition 20 of 8/16/2007 Permit)
19. **CEMS/COMS Quality Control Program** - A CEMS/COMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix F shall be implemented for all continuous monitoring systems. (See 9 VAC 5-40-6750 D for O₂.)
(9 VAC 5-80-110 and Condition 21 of 8/16/2007 Permit)
20. **Temperature Monitoring** - The owner shall install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each fabric filter. Upper furnace and fabric filter temperatures for each boiler shall be continuously monitored, displayed and 1-hour block averages calculated and recorded. Valid 1-hour averages will be obtained for at least 75% of the operating hours per day for 90% of the operating days per calendar quarter.
(9 VAC 5-80-110 and Condition 22 of 8/16/2007 Permit)
21. **Unit Load** - The owner shall install, calibrate, maintain, and operate a steam or a feed water flow meter in accordance with 9 VAC 5-40-6750 I.1.a. The steam or feed water flow rate for each boiler shall be continuously monitored, displayed and 1-hour block averages calculated and recorded. Valid 1-hour averages will be obtained for at least 75% of the operating hours per day for 90% of the operating days per calendar quarter.
(9 VAC 5-80-110 and Condition 23 of 8/16/2007 Permit)

C. Recordkeeping

22. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
 - a. Operational load rates of the boilers.
 - b. Inlet temperatures of the fabric filters.
 - c. Upper furnace temperatures for each boiler.
 - d. VEEs for the boilers.
 - e. Results of all stack tests, visible emission evaluations and performance evaluations.
 - f. Operator training and certifications
 - g. Deviations from staffing requirements
 - h. CEMS records as required by 9 VAC 5-40-6760

- i. Continuous monitoring system calibrations and calibration checks, percent operating time, and excess emissions.
- j. Hourly operation records for the emergency generator.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Condition 24 of 8/16/2007 Permit)

D. Testing

23. **Stack Tests** – Annually and upon request by the DEQ, the permittee shall conduct additional performance tests for Particulate Matter, Lead, Cadmium, Mercury, Hydrogen Chloride and MWC Organics (dioxins/furans), Opacity and Fugitive Ash from each of the boilers to demonstrate compliance with the emission limits contained in this permit. For the Particulate Matter test, the probe and filter holder temperature must be maintained at $160^{\circ} \pm 14^{\circ} \text{ C}$ ($320^{\circ} \pm 25^{\circ} \text{ F}$) and the minimum sample volume is 1.0m^3 . Unless approved by the board, the annual tests shall be conducted no more than 13 months after the previous annual test. The permittee shall submit a test protocol at least 30 days prior to testing. If any boiler has demonstrated compliance with an emission limit for 3 consecutive years, the boiler is not required to test for that pollutant for the next two years. Thereafter, emission tests shall be performed every third year but no later than 36 months following the previous emission test. If an emission test shows noncompliance with an emission limit, annual tests for that pollutant shall be conducted until all emission tests over three consecutive years show compliance with the emission limit for that pollutant.

(9 VAC 5-80-110 and Condition 27 of 8/16/2007 Permit)

24. **Annual Calibrations** - Before each dioxin/furan test, or at least once per year, all signal conversion elements associated with the steam (or feed water) flow measurements shall be calibrated according to the manufacturer's instructions.

(9 VAC 5-80-110 and Condition 28 of 8/16/2007 Permit)

25. **Emissions Testing** - The refuse fired boilers shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-80-110 and Condition 29 of 8/16/2007 Permit)

26. **Test Methods** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

E. Reporting

- 27. Reports for Continuous Monitoring Systems** - The permittee shall furnish written reports to the Director, Tidewater Regional Office of excess emissions from any process monitored by a continuous monitoring system (COMS/CEMS) on a semi-annual basis, postmarked no later than the 30th day following the end of the calendar half. These reports shall include, but are not limited to the following information:
- a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
 - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, (note first 3 hours are exempt per 9 VAC 5-40-6800 C&D) the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
 - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
 - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.
(9 VAC 5-80-110 and Condition 25 of 8/16/2007 Permit)
- 28. Annual and Semi-Annual Reports** - The annual and semiannual reports shall be submitted in accordance with the requirements of 9 VAC 5-40-6770 B2 and B3.
(9 VAC 5-80-110 and Condition 26 of 8/16/2007 Permit)
- 29. Stack Test Reports** - Stack tests shall be reported, and data reduced, as set forth in 9 VAC 5-50-30 of State Regulations. Test results that involve testing of MWC organics shall be reported to the Director, Tidewater Regional Office, in writing, within 120 days after test completion.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
- 30. Standby Emissions Reduction Plan (SERP)** - Upon request of the Director, Tidewater Regional Office, a Standby Emissions Reduction Plan (SERP) shall be submitted within 30 days. The plan shall be available in writing to operators, and implemented in accordance with Chapter 70 of the Regulations.
(9 VAC 5-70-50 and 9 VAC 5-80-110)

V. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity 9 VAC 5-80-720 C)
LH1	Hydrated Lime Hopper Fill Vent Fabric Filter	(9 VAC 5-80-720 B)	Lime Dust	
CH1	Ash Treatment Hopper Filler Vent with Passive Filter	(9 VAC 5-80-720 B)	Dicalcium Phosphate dust	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart E	New Source Performance Standards for Refuse Incinerators	Combustion units 1 and 2 are steam generators, rather than incinerators.
40 CFR 60 Subpart Cb	Emission Guidelines for Existing MWCs	Applies only to existing MWC units with capacities exceeding 250 tons per day.
40 CFR 60 Subpart Eb	NSPS for new Municipal Waste Combustors (MWC)	Applies only to new MWC units with capacities exceeding 250 tons per day.
40 CFR 64.2(b)(1)(i)	Compliance Assurance Monitoring	The applicable emission standards were proposed after the November 15, 1990, so all monitoring requirements are included in the emissions guidelines and state rule.
9 VAC 5-40-6760 F	Activated Carbon Records	The facility will be achieving the mercury standard without the use of activated carbon.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
 (9 VAC 5-80-140)

VII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

31. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
- a. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
 - b. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
 - c. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
 - d. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
 - e. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
- (9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

32. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
- a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.
(9 VAC 5-80-110 F)

33. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

34. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **February 1** and **August 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

35. Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than February 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029
(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

36. The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition C.34 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

37. In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by fax, telephone or e-mail of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.
(9 VAC 5-20-180 C)

Specific Clarification request for Conditions 36 and 37:

The permittee specifically requested clarification as to when they must send in a written report following a malfunction or deviation that results in an exceedance for more than one hour. DEQ-TRO has received input from DEQ-Central Office for this determination because this facility is specifically exempted from 9 VAC 5-40-50 C but does have continuous emission monitors and must comply with Article 46 of Chapter 40.

Compliance with Conditions 36 and 37:

- a) if there is an exceedance of an SMWC pollutant that:
 - (i) is not continuously monitored **AND**
 - (ii) due to a malfunction that will last for more than an hour,
then both the four hour notification and 14-day written notification are required.
- b) if there is an exceedance of an SMWC pollutant that
 - (i) is continuously monitored **AND**
 - (ii) due to a malfunction that will last for more than an hour,
then the four hour notification and semi-annual reporting is required.

G. Severability

38. The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

39. The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

40. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

41. A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

42. The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

43. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
44. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

45. The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

46. During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
 - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
 - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
 - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9 VAC 5-40-90)

O. Startup, Shutdown, and Malfunction

47. At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-40-20 E)

P. Alternative Operating Scenarios

48. Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

49. The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:
- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
 - d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
- (9 VAC 5-80-110 K.2)

R. Reopening For Cause

50. The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

51. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
52. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
53. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.
(9 VAC 5-80-110 L)

S. Permit Availability

54. Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

55. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
56. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)
57. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

58. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of Condition 59 are met.
59. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

- d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
60. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
61. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

62. A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

63. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

64. If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

65. The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

66. If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

67. No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

BB. Emissions Trading

68. Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
 - b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.
- (9 VAC 5-80-110 I)

VIII. State-Only Enforceable Requirements

69. The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.
- a. Odor (9 VAC 5 Chapter 40, Article 2)
 - b. State toxics rule: (9 VAC 5 Chapter 60, Article 4)
(9 VAC 5-80-110 N and 9 VAC 5-80-300)